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# Civic initiatives in urban development: self-governance versus self-organisation in planning practice

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## ABSTRACT

This paper discusses two distinct interpretations of self-organisation with regard to civic initiatives in urban development. One concerns urban developments in which citizens deliberately organise themselves in order to realise a collective ambition. This interpretation of self-organisation resonates with forms of self-governance. The other is embedded in complexity sciences. It stresses the spontaneous emergence of urban structures on a particular scale out of the uncoordinated interactions between initiatives on a lower level. The paper highlights the similarities and the fundamental differences between both understandings of self-organisation. It also identifies implications of these differences for research on spatial planning policy and recommendations for civic initiatives in urban development.

*Keywords: complexity sciences, spontaneity, intent, The Netherlands, governance, cohousing, organic area development*

## 1. Introduction: Confusion in understanding civic initiatives as self-organisation

In response to the decline of the welfare state in Western Europe, there has been an increasing emphasis on civic initiatives related to community building and urban development (Mayer, 2003; Wijdevan, 2012; Newman, 2011; Moulaert et al., 2014). These initiatives involve the active engagement of citizens and non-governmental actors in local decision-making on urban development. They also include citizens taking responsibility for steering and participating in projects, services and activities at, for example, the level of neighbourhoods, villages or cities. A review of the literature reveals a variety of ways in which these initiatives are conceptualised, for example, as 'bottom-up development' (Miazzo & Kee, 2014), 'grassroots initiatives' (Newman et al., 2008) or 'tactical urbanism' (Lydon & Garcia, 2014). The concept of self-organisation is increasingly used to frame and analyse these civic initiatives and their underlying development processes (e.g. Boonstra & Boelens, 2011; Huygen et al., 2012; Frantzeskaki et al., 2013; Meerkerk et al., 2013; Nederhand et al., 2014; Tidball & Krasny, 2007). In general, these studies emphasise the bottom-up nature of civic initiatives and their functioning in relative independence from governments. However, in the emerging debate on urban self-organisation, several understandings of the concept co-exist, each having specific implications for the analysis of civic initiatives and the design of planning strategies that accommodate these initiatives. This paper aims to contribute to a more profound

understanding of these differences. It examines the pertinence and limitations of applying the concept of self-organisation from a complexity perspective by confronting it with an understanding of self-organisation that resonates with forms of self-governance.

Self-organisation is a long-standing concept. It can be related back to Adam Smith's 'invisible hand' and even further back to Aristotle's phrase 'the whole is more than the sum of the parts' (cf. Anderson, 2002). Modern understandings of the concept have been developed in a variety of disciplines over recent decades. Self-organisation has been applied and debated in fields including chemistry (Nicolis & Prigogine, 1977), biology (Maturana & Varela, 1980), sociology (Luhmann, 1990), cognitive psychology (Dalenoot, 1995) and more recently also spatial planning (Portugali, 2000; Batty, 2005; Boonstra & Boelens, 2011).

One way of defining and looking at processes of self-organisation is through a complexity sciences lens (e.g. Kauffman, 1995; Cilliers, 1998; Heylighen, 2008). Complexity sciences comprise research on the evolution of phenomena, rejecting the Newtonian conception of the world based on reductionism, determinism and predictability (Waldrop, 1992; Cilliers, 1998; Heylighen, 2008). Instead, they portray a reality that evolves more or less autonomously, non-linearly and spontaneously as a consequence of the interconnectedness and changeable nature of underlying processes (Rauws, 2015). Self-organisation in complexity sciences includes the spontaneous formation of patterns or structures at a global level out of the interactions between agents at the local level (Heylighen, 2008). Hence, the 'self' in a complexity-inspired understanding of self-organisation refers to the 'unplanned' emergence of organisation 'by itself' or 'spontaneously'.

In the context of urban development, this implies the absence of a collective ambition amongst actors to collectively realise a particular urban transformation. Instead, the emergence of new spatial configurations is mainly driven by actors' actions that are based on individual ambitions. Therefore, this type of self-organisation covers the emergence of urban developments out of uncoordinated and relatively independent actions (e.g. transformation of a shop into a bar or café) by multiple actors (e.g. shop owners). These actions are a response to a trigger for change (e.g. the rise of online shopping). Over time, these actions result in changing spatial patterns on a wider scale (e.g. the shopping street becomes a public 'living room'). Typically, these patterns are unpredictable in the sense that they cannot be deduced from the sum of all actions. Thus a complexity-inspired understanding of self-organisation, from here on simply referred to as self-organisation, emphasises the spontaneous and emergent character of some civic-led urban developments.

This interpretation substantially and fundamentally differs from the understanding of self-organisation that is applied in many studies on civic initiatives in urban development. They frame these initiatives as self-organisation with 'self' referring first and foremost to 'do-it-yourself': a network of citizens, interest groups or entrepreneurs taking action more or less independently from governments (e.g. Van Dam et al., 2008; Swyngedouw & Moulaert, 2010; Schmidt-Thome, 2014). This often involves a transfer of content and process-related responsibilities from public authorities towards the individual citizen or a citizens collective (Tonkens, 2008). Urban self-organisation as 'do-it-yourself' could, for example, include a group of citizens constructing a community garden for urban farming. It could also take the form of citizens running a community centre. 'Do-it-yourself' initiatives sometimes have a rebellious character, working their way around established governance networks and institutions (e.g. Lydon & Garcia, 2014). However, this does not mean that coordination among

the participants is missing. The initiatives are driven by some sort of collective intent and often participants make agreements (sometimes informal) on how to move forward. From this point onward, we will refer to this type of self-organisation as *self-governance*.

Hence, both self-governance and self-organisation have specific emphases through which the development trajectories of civic initiatives can be understood. This paper is not about advocating for one of the two over the other. Rather it aims to support planning theorists and practitioners in distinguishing between the two understandings. One reason is that the proliferation of contributions on planning and complexity (e.g. Portugali, 2010; De Roo & Silva, 2010; Batty, 2013; Innes & Booher, 2010) calls for a more profound discussion on the nature and scope of what can be called a complexity-based understanding of self-organisation. More importantly, being able to better distinguish self-governance and self-organisation processes diminishes the possibility that planners will a) undermine the potential of self-organisation processes with plans and policy that lack the capacity to adapt (Zhang et al., 2014), or b) frustrate the potential of self-governance processes by inadequately accommodating these practices (Van Dam et al., 2014, Oude Vrielink & Wijdeveld, 2011).

This paper is structured as follows. In Section 2, we will unpack the key characteristics of both self-organisation and self-governance and highlight their similarities and fundamental differences. Section 3 will present two empirical cases of Dutch civic initiatives in urban development, illustrating how both types of processes are part of today's planning practice. The cases include a cohousing project and organic development of a new urban district. The analysis of cases will enable us to show how differences in intent, coordination and scale of analysis matter when differentiating between a complexity-based understanding of self-organisation and an understanding that resonates with forms of self-governance. In Section 4, we will conclude the paper with a reflection on how these different interpretations affect policy recommendations as to how public planners should deal with civic initiatives.

## **2. Confronting self-organisation with self-governance**

To further clarify the similarities and differences between self-governance and self-organisation, we will first unpack the characteristics of self-organisation that are related to complexity sciences. Then we will compare these characteristics with those that can be related to processes of self-governance.

### **2.1 A complexity-based understanding of self-organisation**

Complexity sciences put forward a dynamic world view in which systems continuously co-evolve along with contextual and internal changes, producing discontinuous paths of development. Researchers including Allen (1997), Batty (2005; 2013) and Portugali (2000; 2011) have conducted ground-breaking work that illustrates how complexity sciences can help us understand the dynamic and non-linear evolution of cities and neighbourhoods. Self-organisation is a key mechanism in non-linear evolution as it involves the spontaneous transformation of a system by dynamic interactions between its agents (or *actors* in the context of civic initiatives).

Various theoretical approaches and perspectives are applied in relating spatial planning to self-organisation. Some focus on agent-based modelling and cellular automata (Engelen et al., 2003; Batty, 2013; Wilson, 2009), while others bring in assemblage thinking and actor network theory

(Boonstra & Boelens, 2011; Loepfe, 2014). This paper builds on a Complex Adaptive System approach (e.g. Portugali, 2011; Gerrits, 2008; De Roo, 2010) in analysing how civic initiatives generate transformations of urban systems.

Although complexity scholars describe self-organisation in multiple ways, it is generally defined as the spontaneous emergence of a global structure or pattern out of local interactions (e.g. Nicolis & Prigogine, 1977; Bonabeau, 1998; Bak, 1996; Heylighen, 2008). To further clarify what comprises the processes of self-organisation in urban development, we distinguish four characteristics:

- (1) The actions of actors evolve *without central coordination or external control* into collective results. Although one actor, representing an individual or a group, may have the capacity to steer the actions of a few others, no single actor or external force has the capacity to fully control the adaptive actions of all the other actors.
- (2) The actions of actors are based on their *individual intentions*. Actors do interact and may adjust their own actions in response to the actions of others, but a collective intent is missing.
- (3) These actions can transform an urban system's structure and functions as the assembly of uncoordinated and relatively *independent actions by actors on a lower scale gives rise to spontaneously emerging reconfiguration on a system level*.
- (4) The emergence of a change on a system level is *very hard, if not impossible, to predict*. There is no direct cause-effect relationship between actors who are beginning to take action and a transformation of the urban system. The effects of changes produced by individual actors on the local level can fade out, leaving the system's configuration unchanged. They can also result in a self-amplifying process that generates a transformation of the system.

These characteristics of self-organisation can be related to phenomena including the spontaneous emergence of patterns in traffic flows (Kerner, 1998), pedestrian movements (Helbing et al., 2001) and rapid urbanisation processes (Barros, 2005). Portugali (2005) vividly recorded a situation of self-organisation in the urban development of Tel Aviv, Israel. A change in architecture was generated by the uncoordinated, individual actions of citizens who covered their balconies to integrate them into their apartments. In turn, architects responded by designing facades with 'jumping balconies' that prevented citizens from covering their balconies. In this way, a new architectural style spontaneously emerged that is nowadays typical for the city of Tel Aviv.

In improving our understanding of processes of self-organisation in urban development, the issue of scale and the role of institutional forces require specific attention. As we discussed, self-organisation is concerned with the emergence of global structure (i.e. a system) or patterns out of local interactions (i.e. the system's parts). Thus, at least two scales should be taken into consideration in studying these processes. Moreover, it is crucial to define what is seen as the global scale and what is considered to be the local scale. The scale of the analysis can make the difference between developments being understood as planned or as emerging spontaneously. If we were, for example, to analyse informal settlements and consider the plot level to be the global scale, we would be likely to find that the informal housing units were carefully planned by their users. However, from a city-level point of view, these informal housing units can result in patterns of urban sprawl that can be understood as an outcome of self-organisation (Barros & Sobreira, 2008).

Another aspect of analysing processes of self-organisation in urban development is the institutional forces these processes are inevitably exposed to. Institutional forces include the rules humans use to structure and organise their behaviour and their interactions with each other (North, 2005; Ostrom, 2005a). They can be formal rules (e.g. laws, policies and regulations) and informal rules (e.g. social norms, values and agreements). However, in relation to urban pattern formation through processes of self-organisation, institutional forces do not have the capacity to predefine a particular urban configuration as an outcome due to the spontaneous and non-linear character of self-organisation processes. Therefore, institutional forces in these situations function as *conditions* that may enable or constrain self-organisation processes. Examples could include tax rules or clearance policies for particular activities or subsidies, each of which makes some developments easier to realise than others. In this paper, we focus on planning rules and regulations as institutional forces that influence civic-led urban developments.

## **2.2 Similarities and differences between self-organisation and self-governance**

Self-organisation processes are characterised as autonomous, non-linear and spontaneously changing. To what extent do these characteristics overlap with self-governance processes and how do the concepts fundamentally differ?

Governance in the urban context is concerned with interaction and decision-making processes among actors involved in the development of urban areas. Through these processes, amongst others, local government officials, individual citizens, businesses and citizen groups settle complex urban challenges by mutual cooperation and consensus-seeking (Healey et al., 2002). Several scholars have made efforts to differentiate between modes of governance, but an overall consensus is lacking (Lange et al., 2013).

We follow Kooiman (2003) and Arnouts et al. (2012) in distinguishing self-governance from other governance arrangements. In hierarchical governance arrangements, governmental actors have a strong grip on decision-making processes regarding urban developments and the resources that can be mobilised. In shared or co-governance, responsibilities are shared with non-governmental actors; governmental and non-governmental actors are mutually dependent in realising urban development. In processes of self-governance, however, citizens and other non-governmental actors take the lead. To a large extent, they decide whom to involve and how resources are allocated. Governmental actors remain at a distance and may try to determine the conditions under which the self-governed development can unfold. Please note that we do not regard self-governance as taking place in an institutional vacuum, but we do consider the governance of the 'self' to be determined by external forces only to a limited extent (cf. Sørensen & Triantafillou, 2013).

Therefore, self-governance can be understood as a form of coordination and decision-making in which individuals and communities have a high degree of freedom in shaping a system they are part of in accordance with their own preferences (Kooiman, 2003; Arnouts et al., 2012). Confronting the concept of self-governance with the earlier distinguished characteristics of self-organisation, we distinguish the following characteristics of self-governance:

- (1) Actors take actions guided by some form of *internal coordination*. This coordination can, for instance, be embedded in a participatory, member-led decision-making process or can be based on more informal exchanges of views and interests between actors.

- (2) The actors coordinate their actions as they act with a *collective intent*. The transformation process is centred on a common goal or ambition.
- (3) The transformation of the urban configuration *results from deliberative action in order to achieve this common goal or ambition*. Actors purposely try to establish a change in the system's structure and/or function by means of cooperation.
- (4) The transformation of the system is *to some extent predictable* as it involves a degree of internal coordination and is based on the actors' collective intent. The degree of predictability depends on factors such as the actors' loyalty to the collective ambition, the strength of the coordination and the impact of external disturbances.

A variety of self-governance processes are presented in the literature, such as fisheries cooperatives (Townsend, 1995), farmer cooperatives (Termeer et al., 2013) or management of forest resources by local communities (Ostrom, 2005b). Examples related to urban development include street refurbishment initiatives, community gardens, urban farming and local energy cooperatives (Miazzo & Kee, 2014; Avelino et al., 2014).

As in self-organisation, institutional forces function as enabling or constraining conditions. They can impinge on self-governing processes by allowing, stimulating and sometimes urging groups to govern themselves (Sørensen & Triantafillou, 2013). Unlike in self-organisation, these conditions can relate more directly to potential future urban configurations as the transformation process is envisioned by the actors involved.

To conclude this section, self-governance is focused on interaction and decision-making processes led by citizens and other non-governmental actors. Meanwhile, self-organisation processes are related to the adaptive behaviour of urban systems and networks. These processes include the spontaneous emergence of global patterns and non-linear cause-effect relationships. Table 1 presents the distinguishing characteristics of both types of processes, showing both the similarities and the important differences. What might be noteworthy is that our framework for differentiating between the two processes should not be interpreted as an attempt to give permanent labels to certain types of civic initiatives. Self-governance processes and self-organisation processes can merge into each other in planning practice as civic initiatives can change over time. As such, it is an important task of planners to continuously update their analysis and adjust their understanding of an initiative when necessary.

*Table 1: Similarities and differences between self-governance and self-organisation in urban development*

<b>Table 1: Similarities and differences between self-governance and self-organisation in urban development</b>		
	<i>Urban self-governance</i>	<i>Urban self-organisation</i>
<i>Focus of analysis:</i>	Urban transformation led by citizens and non-governmental actors	Urban transformation as a result of adaptive behaviour of urban systems and networks
<i>Characteristics:</i>		
Actions by actors	Internally coordinated, no external control	No coordination or external control
Intent	Collective	Individual
Source of the reconfiguration of the urban system	Resulting from deliberative action towards a common goal	Spontaneously emerging from a set of independent changes at a lower scale
Predictability of the outcome of the transformation process	Some degree of predictability	Unpredictable
<i>Point of engagement of enabling and constraining institutional forces:</i>	Individual and collective activities	Individual activities

### **3. Differentiating self-organisation from self-governance: illustrations from Dutch planning practice**

In this section, we will explore to what extent self-organisation and self-governance processes can be distinguished empirically. We will discuss two Dutch urban developments in which citizens played a leading role. We focused on the Netherlands because civic initiatives have received renewed attention in Dutch planning practice. This has triggered the proposal of alternative development frameworks. By examining Dutch cases, we can explore the contribution of the concepts of self-governance and self-organisation in understanding and refining these frameworks and discussing the implications for the role of public planners.

Since the Second World War, most urban development processes in the Netherlands have been highly regulated and primarily supply-oriented. Project developers and social housing corporations, together with municipal governments, are in charge of what will be built and by whom. The demands of individual prospective house buyers are only taken into consideration to a limited extent (Blijie et al., 2009; Boelens & Visser, 2011). This practice is under pressure as modern citizens demand greater influence over the development of their daily urban environment (Hajer, 2011). Impelled by the



financial and economic crisis of 2008, which revealed the financial risks of rigid and supply-oriented development schemes, municipal governments began to actively experiment with alternative development frameworks. These frameworks aim to generate the flexibility to accommodate demand-driven development and leave more room for citizens to develop urban projects by themselves (Qu & Hasselaar, 2011; PBL & Urhahn Urban Design, 2012).

The urban developments that will be analysed can be related to this new planning discourse in Dutch planning practice. The two cases are urban developments at distinct but related scales. The first case comprises the cohousing project Achter de Reildijk in the city of Groningen (Figure 1) and concerns a civic initiative on the plot level. Cohousing is an interesting type of urban development for this study as it is about citizens joining forces to develop their homes together and sometimes to share aspects of their daily lives (SEV, 2007; Bamford, 2001; Siciliano, 2009). The second case addresses the organic development of Oosterwold. It includes a mixed use, greenfield development on the urban district level, part of the city of Almere. Oosterwold is a relevant case as its organic development includes a government-designed, open-ended development strategy whose success completely relies on citizens (or groups of citizens) shaping the structure and functions of the area by setting up projects on a plot level, including cohousing projects similar to Achter de Reildijk. In both cases, the urban area under development, respectively the plot and the district level, is considered as the primary scale of analysis (i.e. system level). Discussing the two cases together gives us the opportunity to illustrate how differences in intent, coordination and scale of analysis matter when distinguishing between self-governance and self-organisation processes.

< INSERT FIG. 1 AROUND HERE >

*Figure 1: Location of the cases*

The first step in the research process was to gain an understanding of how the cases are embedded in the debate on civic-led urban development. Therefore, we conducted three exploratory interviews with experts from both the public and private sectors and participated in four discussion sessions on civic-led urban development in the Netherlands. Moreover, the two presented cases were embedded in two broader research projects on, respectively, 10 cohousing projects and 12 cases of organic area development. We selected the moment at which ambitions and ideas turned into concrete projects for realising new urban structures as the starting point for analysis. In the Achter de Reildijk case, this was the start of the cohousing group; in the Oosterwold case, this was the moment at which initiators could start developing their project proposal.

Fourteen semi-structured, in-depth interviews were conducted with involved actors, of which four were conducted by students in the research team. The interviewees included project managers, policymakers from municipal governments, advising consultants and a bank representative. In the case of Achter de Reildijk, we also conducted three interviews with citizens participating in the project, who are now residents of the development. The interviews were recorded where feasible; if this was not feasible, the review report was sent back to the interviewee for verification. The results derived from these interviews were supplemented with secondary data from policy reports, professional magazines and practical documents produced for the realisation of the urban developments.

### 3.1 Cohousing project Achter the Reisdijk

#### 3.1.1 A brief project description

Cohousing initiatives are housing projects with a high degree of resident control that can be found in many countries and are based on a number of motives (Vestbo, 2000; Williams 2005; Krokfors, 2012). In the debate on alternative urban development models in Dutch practice, stimulating cohousing initiatives is seen as one of the possibilities for promoting a diverse urban fabric that can serve different lifestyles due to its small scale (Boelens & Visser, 2011). Cohousing projects are typically limited to the size of an urban block and can include both greenfield and brownfield developments. Although in practice cohousing projects contain aspects of both (Tummers, 2011), a general distinction can be drawn between those focusing on the 'living together' aspect of cohousing (see e.g. Williams, 2005; Vestbo, 2000; Lietaert, 2010) and those emphasising 'building together' (see e.g. Siciliano, 2009; Boelens & Visser, 2011). The Achter de Reisdijk cohousing project belongs to the latter group and involved a collective of future residents taking control of the project's development process.

In May 2008, 12 citizens started the Achter de Reisdijk cohousing project. The citizens were linked together by KUUB, a non-profit organisation which specialises in supporting cohousing projects. Over time, more people joined the initiative and in the end 26 families designed and realised their new houses in cooperation (see Figure 2). Apart from the conditions set by the municipal government, no urban design was established in advance. There was also no pre-structured development trajectory available; instead, the project was a process of becoming led by citizens themselves and as such is an example of a more demand-oriented development. The project was completed in December 2010.

The municipal government allocated the land for the project and set various conditions with regard to the project's design. The design conditions included the number (30, later reduced to 26) and size of the plots for the individual houses, a high standard for low-energy building design and a plot coverage ratio of 40 percent. In addition, the number of floors was restricted to three or four (depending on the plot) and one row of houses had to be designed with a staggered façade.

Due to the central role citizens play in the development of cohousing initiatives, these projects have been framed in the literature as urban self-organisation (e.g. Tummers, 2011; Minora et al., 2013). Based on the differentiated understandings of self-organisation we propose, we argue that the development of Achter de Reisdijk mainly resonates with characteristics of self-governance.

<INSERT FIG. 2 AROUND HERE>

*Figure 2: The Achter de Reisdijk cohousing project. 26 houses were constructed, each with a private garden. The cost of the houses varied between EUR 230,000 and EUR 500,000.*

### 3.1.2 Achter de Reildijk, a self-governed urban project

In this section, we will analyse the Achter de Reildijk project by systematically comparing its characteristics with the characteristics of self-organisation and self-governance processes as distinguished in Table 1.

The Achter de Reildijk initiative was realised due to the intense efforts of and interactions between the prospective inhabitants of the project, from here onwards referred to as *project members*. The local government verified that the set conditions and other legal requirements were met, but it was not involved in the design and the management of the project. Instead, the collective of project members coordinated the development of the project internally with support from KUUB. They collectively selected the architect and explored the possible urban designs for the project. They also established an organisational structure with a management team and various specialised committees, and made decisions together about contracting commercial partners. In addition, they collectively took the initiative to extend the project's scope by including the design of the public space in the project's direct vicinity. Hence, the project members were in the lead and the actions of the individual citizens were subject to coordination by the collective as a whole.

However, the cohousing collective's autonomy in coordinating their project varied over time. At some moments, the decision-making process was strongly guided by KUUB, for example when the collaboration with the initially selected architect became problematic. KUUB urged the group to replace the architect (which eventually did happen). While KUUB intervened with the intention of 'preventing the project from becoming an endless process' (KUUB consultant interview), the situation was confusing for the project members.

'We were pressured by them with a series of arguments about what decision should be taken, but at the same time it was suggested that we were free to make our own decisions. That was confusing. [...] Are they in charge or are we? We were in charge, but at that time it felt as if they were.' (participant interview)

This kind of occurrence illustrates that the decision-making autonomy of collectives can vary during the development process. Therewith, the extent to which a project can be understood as self-governed can change over time. Although beyond the scope of this paper, research on a further differentiation of processes of self-governance – based on how a collective engages with external actors – might be helpful for a time-sensitive framing of civic-led developments.

The development process of Achter de Reildijk was based on a collective intent in addition to the individual intentions of project members. Their collective ambition was to jointly develop a reasonably priced housing project in which the houses could be customised to the needs of the individual families. Stimulated by conditions set by the municipality, an additional ambition was to develop low-energy buildings. However, this ambition faded during the development process. To underline their functioning as a group, the project members established themselves as a formal association and explicitly fostered their identity by organising collective celebrations of milestones in the project's development. The collective intent did not mean that individual ambitions were absent. However, they had to be in tune with the collective intent of the group.

As a logical consequence of the above, the urban development that was established at Achter de Reitsdijk did not emerge spontaneously from the interactions between project members. Instead, the development was self-initiated by the project members who undertook deliberate action to construct a cohousing project. As it was guided by a collective intent and internal coordination, the project's development trajectory was to some extent predictable.

The conditions formulated by the local government concerned the outcome of the development process: the urban system's configuration (see Section 4.1.1). These conditions functioned mainly as constraints on the autonomy of the collective in taking decisions about the design. However, they did not define a specific outcome and left enough room for the collective to shape their own project. It also helped that the local government took a flexible position during the development process in granting the collective's requests to adjust conditions. For example, several plots were merged and the requirement for low-energy buildings was dropped. The local government also supported a proposal by the collective for an extension of the project's scope to include the design of the public space. In turn, the project members had to take over some of the maintenance responsibilities.

To conclude, the development process of Achter de Reitsdijk resonates with the characteristics of self-governance. The collective could develop their project in relative autonomy, although KUUB was sometimes a strong guiding force. Moreover, the collective coordinated individual members' contributions to the project and this coordination was grounded in a collective intent. Therefore, the project's development was self-intended by the collective and did not emerge spontaneously out of individual actions by the project members. Hence, Achter de Reitsdijk is an example of a 'do-it-yourself' urban development.

In the next section, we will explore the extent to which a series of self-governed civic initiatives can generate self-organisation patterns in urban development on a higher scale. In Section 3, we referred to the development of informal settlements, in which spontaneous urban pattern formation can indeed be found. In discussing the development of Oosterwold, we will investigate whether the alternative development frameworks that have recently been developed in Dutch planning practice have the potential to trigger a similar process. By doing so, we will address a complexity perspective on urban development, relating autonomously evolving urban transformations to traditional planning views in which control and coordination play an important role.

## **3.2 Organic area development in Oosterwold**

### **3.2.1 A brief project description**

'Organic area development' is an innovative development strategy in Dutch planning practice in which future inhabitants and users of a development area become the primary responsible parties in the development process (PBL & Urhahn Urban Design, 2012). It is about creating opportunities for incremental urban development that build upon a series of civic initiatives. Such a development process is guided by a set of conditions under which these initiatives can unfold. As these conditions to a large extent leave the structure and functions of the initiatives open, as well as the timeframe in which they should be developed, the development trajectory of the area is open-ended. As such, organic area development offers room for a variety of initiatives to be realised and managed by citizens themselves. Together, these initiatives shape the configuration of the area, generating an

urban mosaic. Hence, the analysis of this case addresses the, at first glance, paradoxical situation of a planned development framework for urban self-organisation.

In the spring of 2014, the city of Almere launched the organic development of Oosterwold as a new urban district (see Figure 3). The city of Almere is located in one of the Dutch polder areas and the area designated for urban development currently has an agricultural function. The development area covers 4300 hectares and if its full capacity were to be used, the area would be expected to include at least 15,000 dwellings and to support 26,000 jobs (Gemeente Almere & Gemeente Zeewolde, 2013). By the end of 2014, 17 initiatives, varying in size between 0.5 and 5.5 hectares, had been started ([www.maakoosterwold.nl](http://www.maakoosterwold.nl); interview with project manager). The two municipal governments involved considered 'self-supportiveness', 'low-density' and 'country-like setting' to be central values for the development of the area. On the basis of these values, they defined conditions that initiators have to meet when aiming to develop a project in the area.

To start a project, an initiator or group of initiators can obtain a plot of any size and shape. They can also freely select the location in the development area as well as the project's function or functions. However, each individual project has to meet various conditions (Gemeente Almere & Gemeente Zeewolde, 2013). First, the ratio between urban land, farmland and publicly accessible green areas per plot is predefined. In zones with existing green areas or historical landscape patterns, the required share of nature or farmland is higher. A floor-area ratio of 0.5 has also been defined, although exceptions are possible when extra floor surface is compensated for with additional green spaces or agricultural land. Some basic infrastructure is available, but initiators are expected to construct their own access road and reserve the edge of their plot for possible future extensions of the local road network. As such, the road network will develop organically. Moreover, projects have to be partly self-supporting in terms of energy and wastewater treatment. They should also cause no nuisance to neighbouring plots and should comply with generally applicable environmental regulations. In practice, this means that industrial sites that generate serious air or noise pollution cannot be built. Finally, initiators need to take existing farmhouses and reserved zones for infrastructure and green spaces into account when planning their projects.

< INSERT FIG. 3 AROUND HERE >

*Figure 3: Overview of the Oosterwold development area and an impression of how the area might develop organically over time (RAAM, 2012).*

### **3.2.2 Oosterwold: a development framework for triggering urban self-organisation**

As in our analysis of the Achter de Reijndijk cohousing project, we will analyse to what extent the development of Oosterwold can be understood as a process of self-organisation or self-governance. It is important to note that compared to Achter de Reijndijk, the central level of analysis here is the development area instead of the plot level. As the development of Oosterwold only started in 2014, our analysis is based on the designed development framework and the first initiatives to arise. The

aim is to evaluate whether the framework has the potential to trigger a self-organisation process: an incremental development of independent projects resulting in an evolutionary trajectory that will transform the entire area in due course.

The development of Oosterwold is expected to unfold from the range of initiatives that will be realised in the development area. External control of this development trajectory is limited. The role of the local government is to facilitate the development of civic initiatives and to ensure these initiatives each meet the conditions that have been set. Although the conditions reflect the ambitions of the municipal government, they allow for a variety of functions, designs, plot sizes and shapes, and a variable development pace. Therefore local governments have little grip on the areas configuration that will emerge.

Meanwhile, it is unlikely that forms of internal coordination that cover the entire development area will be established. It may very well be that initiators of various projects join forces on the street or block levels in developing the road network or energy supply, or in creating a particular kind of neighbourhood setting (e.g. living and working centred around equine sport). However, it is not expected that such coordination efforts will cover the complete district. This is because the area is too big, the projects too geographically dispersed and the type of initiatives likely too diverse. Hence, internal coordination on a system level will most likely be absent.

As such, the development of Oosterwold is based on the intent of individual initiators. From the variety of projects that started in 2014, we have learned that initiators primarily start a project to take advantage of the freedom Oosterwold offers to realise their own ambitions. These have included, for example, a cohousing project, a project combining a dwelling and a theatre, a holiday park, a living community with care assistance and a tillage-bakery combination ([www.maakoosterwold.nl](http://www.maakoosterwold.nl), 2015). Therefore, the area will transform in an incremental and evolutionary way based on these and many other individual projects.

As a consequence, the spatial configuration of Oosterwold will to a large degree develop spontaneously over time. This is not to say that the transformation of the area will come as a surprise; after all, the development framework for Oosterwold was drafted to deliberately trigger this transformation. Instead, spontaneity refers to the spatial patterns that will be produced as part of the development process. We argue that, if the development of Oosterwold takes off fully, this development pattern will indeed emerge largely spontaneously within the set conditions. This is because these conditions include criteria for individual projects, leaving open a myriad of possible spatial configurations for the area. Therefore, the eventual configuration will emerge from the various initiatives and how they organise themselves over time and space. This also implies that the transformation of Oosterwold is an unpredictable process.

Several conclusions can be drawn from the analysis of Oosterwold's development framework and the very early stages of the development itself. First, the development framework has the potential to trigger self-organisation processes. No specific spatial configuration for the area has been envisioned as a desired outcome and there is limited external control and internal coordination of the spatial configuration of the area that will arise. Instead, the development of Oosterwold is mainly based on the individual intentions of project initiators. As such, the spatial configuration of the area that will eventually arise cannot be predicted in advance and will emerge spontaneously from the many civic initiatives on the plot level.

The analysis also illustrates how scale matters when differentiating between self-governance and self-organisation processes. Civic initiatives that could be seen as self-governance processes in isolation, such as Achter de Reildijk, may, in combination with other civic initiatives, contribute to processes of self-organisation. Meanwhile, these self-organisation processes evolve in the case of Oosterwold within the conditions set in the development framework. We believe this illustrates an important mechanism: by setting conditions for development, the highly regulated planning system opens up to autonomous and spontaneous urban change. In embracing processes of self-organisation, public planners focus less on defining the content and structuring the process of urban developments. Instead, they concentrate on setting conditions under which development can unfold autonomously while trying to stimulate the positive and mitigate the negative.

Setting conditions for development in order to trigger self-organisation proactively reveals an alternative relationship between regulation and spontaneous development. While some studies analyse self-organisation processes in urban development in situations with a weak formal planning system (Barros & Sobreira, 2008) or as unintended outcomes of policy interventions (Zhang et al., 2015), the case of Oosterwold is different. In the development of Oosterwold, public planners have taken a step back on purpose. With the development framework, they created an open-ended development trajectory for spatial configurations to spontaneously emerge, while setting conditions that individual projects must meet. Together this results in a 'possibility space' for urban self-organisation.

#### **4. Conclusion: The importance of differentiating between self-organisation and self-governance for planning theory and practice**

We started this paper by observing that the concept of self-organisation is used in conceptualising civic initiatives in urban development. However, civic initiatives are rather diverse, and so are processes of self-organisation. We emphasised the importance of distinguishing understandings of self-organisation in relation to the role of civic initiatives in urban development. We contributed to this distinction by contrasting a complexity-based understanding of self-organisation with an understanding of self-organisation that we argue is better described by the term self-governance. The former is concerned with the spontaneous emergence of urban transformation stemming from uncoordinated and relatively independent actions by individuals or groups of citizens. The latter is about citizens and other non-governmental actors steering urban development processes collectively and in relative autonomy from governmental actors.

In offering a framework to differentiate between self-organisation and self-governance, we identified several characteristics that help to distinguish the two types of processes. We indicated that self-governance processes are characterised by a form of internal coordination between the actors. They are also driven by a collective intent in addition to individual intentions. Self-governed initiatives generate a self-initiated change of urban areas and include some degree of predictability. The development of the Achter the Reildijk cohousing project offers an example of self-governed urban development. Meanwhile, urban developments that include self-organisation processes are characterised by the absence of central control or external coordination. They are driven by the intent of individual actors who act relatively independently from others, generating transformations of urban areas that evolve in an unpredictable manner. These transformations include the

spontaneous emergence of urban configurations out of developments at a lower level. The organic development of Oosterwold provided an illustration of a planning framework that can trigger such urban development processes based on a series of civic initiatives.

By discussing the presented framework against the backdrop of the analysed cases, at least two conclusions can be drawn. First, the comparison of the developments of Achter de Reijndijk and Oosterwold illustrates the importance of scale in analysing civic-led urban developments. Civic initiatives that can be defined as self-governed urban development on one scale can be part of spontaneously emerging urban patterns on a higher level that are the result of self-organisation. Thus, the scale of analysis has consequences for how a civic-led urban development is understood. Moreover, as different urban transformations take place simultaneously at various scales, self-governance and self-organisation processes can evolve concurrently in one area.

Second, there is a crucial difference between the two processes when it comes to formulating policy recommendations that would support public planners in dealing with civic initiatives. Self-governed urban developments include a collective intent and some kind of internal coordination, while this is absent in urban development through processes of self-organisation. This difference impacts on the facilitating role planners can play with regard to civic-led urban developments through institutional design and expert advice, as it influences how planners relate to these developments.

In the case of self-governed urban developments, planners can function as the interface between the ambitions of the collective and the goals formulated in planning policies. They can identify potential synergies between these ambitions and policy goals, and find opportunities to bridge possible gaps between them. Planners are often also involved in prescribing the conditions an initiative has to meet, as we saw in the Achter de Reijndijk project. The challenge here is to find a balance. Planners should try to minimise the possible negative effects of a self-governed civic initiative on its surroundings. At the same time, they should avoid allowing conditions to become so rigid and bureaucratic that the collective's motivation and energy disappears. This links to a third function planners can have, namely to inspire and empower civic collectives. This can include strengthening the initiators' confidence, thinking along with them about how they can realise their collective ambitions, sharing best practices and helping them to maintain an overview of the project (see also Oude Vrielink & Wijdeveld, 2011).

For their part, self-organisation processes are not directed by a collective intent and lack coordination since they emerge spontaneously. This means that the roles identified in relation to self-governance are still relevant, but can be more difficult to fulfil. The spontaneity of these processes prevents foreseeing the urban configuration they will give rise to. It is also more difficult to relate to self-organised development as it is less clear whether and at what moment planners will be involved.

Therefore, we suggest a somewhat different role for planners including three main responsibilities. First, planners can 'discover' emerging patterns by recognising early warning signals and identifying global trends that can function as amplifiers. Second, they can respond to the developments by implementing rules and regulations that enable positive effects and mitigate negative ones. While such a response can be seen as reactive, the case of Oosterwold showed that planners can also proactively trigger self-organising development processes guided by various conditions. A third and final responsibility can be to foster a process of continuous adaptation. After all, self-organisation



processes and planning rules and regulations are co-constitutive, and therefore the development of monitoring, evaluation and learning activities is essential. All in all, we hope that by offering an analysis of the similarities and fundamental differences between self-governance and self-organisation, this paper opens new directions for the integration of planned and unplanned developments in spatial planning strategies.

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